



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,223	12/23/2005	Ulrich Berens	000611-001	5313
44912	7590	03/25/2008		
WRB-IP, LLP 1217 KING STREET ALEXANDRIA, VA 22314			EXAMINER BOZADJIAN, GEORGE D	
			ART UNIT 1792	PAPER NUMBER
			MAIL DATE 03/25/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/562,223

**Applicant(s)**

BERENS, ULRICH

**Examiner**

GEORGE D. BOZADJIAN

**Art Unit**

1792

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-859)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 12/23/2005 and 10/30/2006

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

## **INFORMATION ON HOW TO EFFECT DRAWING CHANGES**

### **Replacement Drawing Sheets**

Drawing changes must be made by presenting replacement sheets which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments section, or remarks, section of the amendment paper. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). A replacement sheet must include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and within the top margin.

### **Annotated Drawing Sheets**

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheet(s) must be clearly labeled as "Annotated Sheet" and must be presented in the amendment or remarks section that explains the change(s) to the drawings.

### **Timing of Corrections**

Art Unit: 1792

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the basket, and the spray nozzle must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

#### **Content of Specification**

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.

Art Unit: 1792

- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
  - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
  - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.

- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
  - (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
  - (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
  - (l) Sequence Listing: See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.
3. The disclosure is objected to because of the following informalities: The disclosure must be submitted in the manner described above. Sections 'f' to 'i' of the Arrangement and Content of the Specification must be followed in the manner described above. Additionally, section 'h' must be inserted in the disclosure because it relates and provides a description to the drawings that were submitted with the application.

Appropriate correction is required.

***Claim Objections***

4. Claim 7 is objected to because of the following informalities: Since claim 7 is dependent on claim 6, claim 7 must state chamber or overflow, and not just "...overflow". Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-2, 5-9, 12, and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over HAKANSSON (International Publication Number WO 92/16314, hereafter '314), in view of Ripley (U.S. Patent 6,383,371, hereafter '371), and further in view of Caroli (U.S. Patent 6,228,180, hereafter '180).

'314 teaches a device (Fig. 1) for purification of machine parts contaminated by oil and grease [Title; Abstract; Figs. 1-2; page 5, lines 21-24], comprising:

a purification housing (1) which can be locked with a lid (2 is a lid that opens and closes so as to seal the washing chamber. For a lid to stay closed and seal a machine that has movable parts, the lid has to be obviously locked), in which a support member (1 and 3 provide a system to hold objects) for receiving the a fluid provided in the housing acts upon the parts to be purified



which are provided on the support (the nozzle system sprays liquid in 1 upon the parts) and a bioreactor (14) for treating the purifying fluid (14 treats the composition of the purifying liquid), where the purifying fluid is provided in a closed circuit via a discharge line (10, 17 and 18) and a supply line (15) between the purification housing and the bioreactor [Abstract; page 5, line 21 – page 6, line 24; page 7, lines 1-25],

a valve (18 is located between the blowing system and the purification housing), which valve is opened for the purifying fluid only at the temperature level of the bioreactor [Fig. 1; page 9, lines 1-8].

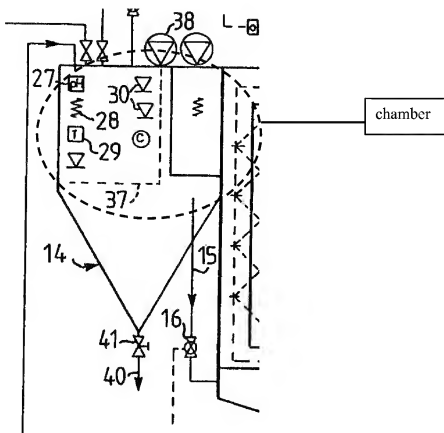
It does not teach the support member being a basket, a heat exchanger and its location on the discharge line and the valve being located between heat exchanger and the bioreactor. However, '180 teaches a washing machine for washing items having support member in the form of a basket (16) to support items during washing [Title; Abstract; Figs. 1-2; col. 2, lines 7-14]. Therefore, one of ordinary skill in the art at the time the invention was made would have substituted the support member of '314 with the basket of '180 to hold items to be washed. '180 does not teach a heat exchanger. However, '371 teaches a wastewater treatment apparatus that uses bacteria to treat contaminants in the wastewater, the apparatus having a conduit discharge and feed system wherein a heat exchanger (83) is located in the discharge line (81-88) which is capable of heating or cooling the fluid passing through the conduits [Title; Abstract; Fig. 1; col. 4, lines 4-11; col. 2, lines 15-29]. Therefore, one of ordinary skill in the art at the time the invention was made would have placed the heat exchanger of '371 in the discharge line of '314 to have treated the condition of the purifying liquid that carries the bacteria from the washing apparatus to the bio reactor. As for the matter of rearranging the valve and heat exchanger along

the discharge line, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have rearranged the valve (18 in '314) and the heat exchanger to have been placed in the matter the limitation is claimed, since it has been held that rearranging parts of an invention involves only routine skill in the art – *In re Japikse*, 86 USPQ 70. This rearrangement would allow the valve to open/close access for the fluid to the bioreactor based on an operator's choice. Additionally, having the valve located after the heat exchanger would give an operator the choice of how long to keep the fluid in the heat exchanger to be cooled or heated before creating a flow path by opening the valve.

7. Claim 2: '314 teaches all the limitations of claim 1 above. It further teaches a pump (11) which circulates the purifying fluid is provided between the valve (18) and the housing (1) [Fig. 1; page 6, lines 5-13]. It does not teach the pump located between the heat exchanger and the valve. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have placed the pump (11) between the heat exchanger and the valve, since it has been that rearranging parts of an invention involves only routine skill in the art – *In re Japikse*, 86 USPQ 70. This rearrangement would allow the pump to provide flow pressure for the fluid to the bioreactor based on an operator's choice. Additionally, having the pump located after the heat exchanger would give an operator the choice of how long to keep the fluid in the heat exchanger to be cooled or heated before creating a flow pressure by activating the pump.

8. Claims 5 and 9: '314 teaches the bioreactor having an air throughput to favor the bacteria [Fig. 1; page 9, lines 1-8].

9. Claim 6: '314 teaches in an upper area of the bioreactor a chamber (see figure below) is located in order to receive the treated purifying liquid [Fig 1 shows supply line 15 directed from the top, i.e. upper chamber, of the bioreactor to device 1].



10. Claim 7: '314 teaches all the limitations of claim 7 above. It further teaches the chamber is connected to the supply line 15 which is connected to the spray nozzle system (the supply line is connected to the nozzle via 9, 10, 12, 6, and 5, which ejects the liquid through nozzle 8)

[Abstract; page 5, line 21 – page 6, line 24; page 7, lines 1-25].

11. Claims 8, 12, 15-17: '314 teaches a control arrangement (13, 16, 18, 21, 23, 36, 46, 51, 29, 43, and 7) controls the heat exchanger, the pump system, the valves, as well as the pump system for supplying air to the bioreactor [the control arrangement are all interconnected one

way or another to run the apparatus to perform an operator's desired commands. Fig. 1; page 5, line 30 – page 6, line 38; page 10, lines 17-23].

12. Claims 3-4, 10-11, and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over '314, '371, and '180 as applied to claim 1 above, in view of Hakansson (European Publication Number 0 309 432 A2, hereafter '432).

'314 teaches all the limitations of claim 1 above. It teaches a bioreactor, having bacteria, attached to washing device operating under a controlled temperature environment [see citations above]. It does not teach the temperature range of the bioreactor being between 35°C to 40°C. However, '432 teaches an apparatus for cleaning objects using bacteria to biodegrade the hydrocarbons, wherein the preferred tank temperature is 35°C to 40°C for maintaining bacteria population [Title; Abstract; page 10, lines 33-46]. Therefore, one of ordinary skill in the art at the time the invention was made would have run the bioreactor of '314 at a temperature range of 35°C to 40° to have maintained the bacteria population.

13. Claim 4: '314 teaches all the limitations of claim 1 above. It teaches a washing device having purifying fluid at a temperature of about 70°C [see citations above. Also, see page 3, line 36 – page 4, line 2]. It does not teach the temperature range being between 50°C to 80°C. However, '432 teaches the apparatus for cleaning objects uses purifying fluid having a temperature of 50°C to 90°C to dissolve and emulsify oil and contaminants [Title; Abstract; page 11, lines 53-56]. Therefore, one of ordinary skill in the art at the time the invention was made would have set the temperature of the purifying fluid of '314 between 50°C to 80°C to have dissolved and emulsified oil and contaminants.

14. Claims 10-11: '314 teaches the bioreactor having an air throughput to favor the bacteria [Fig. 1; page 9, lines 1-8].

15. Claims 13-14: '314 teaches a control arrangement (13, 16, 18, 21, 23, 36, 46, 51, 29, 43, and 7) controls the heat exchanger, the pump system, the valves, as well as the pump system for supplying air to the bioreactor [the control arrangement are all interconnected one way or another to run the apparatus to perform an operator's desired commands. Fig. 1; page 5, line 30 – page 6, line 38; page 10, lines 17-23].

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GEORGE D. BOZADJIAN whose telephone number is (571) 270-1871. The examiner can normally be reached on M-F 8:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1792

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/  
Supervisory Patent Examiner, Art Unit  
1792

/G. D. B./  
Examiner, Art Unit 1792  
GDB